SUBMIT IN TRIPLICATES (Other instructions on reverse side)

Form approved. Budget Bureau No. 42-R1425.

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY						5. LEASE DESIGNATION	AND SERIAL NO.
A DDL ICATION	SL - 045049	OR TRIEM NAME					
1a. TYPE OF WORK	1 FOR PERMIT	IO DRILL, I	JEEP	EN, OR PLUG B	ACK	_	W OIL THIRD THREE
	LL x	DEEPEN [PLUG BAG	CK 🔲	7. UNIT AGREEMENT O	NAME
b. Type of well	AS []		, a	INGLE MULTIP	r. 10	Storage Agre	ement
	ELL OTHER	Gas Storag	€ ze	ONE ZONE	···· <u> </u>	8. FARM OR LEASE NA	()(
	Fuel Resources,	Tnc		15.		Unit Well 9. WELL NO.	
3. ADDRESS OF OPERATOR					<u> </u>	41-S	3
P. O. Box	1129, Rocleport location clearly and	k Springs,	Wyom	ing /82901 ////	3	10. FIELD AND POOL,	OR WILDCAT
4. LOCATION OF WELL (R At surface	eport location clearly and	in accordance wit	h any S	State requirements	VFT	Clay Basin G	
	•	413' FEL	NW	NE SASION	1977	11. SEC., T., R., M., OR AND SURVEY OR A	BLK. REA
At proposed prod. zon	ie .			SAS & ANINI		NW NE 26-3N-	-24E
14. DISTANCE IN MILES	AND DIRECTION FROM NEAD	REST TOWN OR POST	r offic	n •	%s:⊤	12. COUNTY OR PARISH	
41 miles	south of Rock S	prings, Wyo	ming			Daggett	Utah
15. DISTANCE FROM PROPO LOCATION TO NEAREST	r	366'	16. NO	O. OF ACRES IN LEASE	17. NO. O TO TI	F ACRES ASSIGNED HS WELL	
PROPERTY OR LEASE I	g. unit line, if any)		***	480		_	
18. DISTANCE FROM PROP TO NEAREST WELL, D OR APPLIED FOR, ON TH	RILLING, COMPLETED,	1100'	19. PH	6280 †	20. ROTAL	Dotory	
21. ELEVATIONS (Show who	· U	n it #10		0200	1	Rotary 22. APPROX. DATE WE	ORK WILL START
GR 6810	1					After Unit #	40-S
23.	P	ROPOSED CASIN	G ANI	CEMENTING PROGRA	M		
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FO		SETTING DEPTH	1	QUANTITY OF CEME	NT
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8-3/4"	7" new	23#, K-5		6280'		e determined	
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	to drill the su						
	are as follows				tier a	t 5685', Mowry	r at
3893', Dakota	at 6080', and M	orrison at	0230	•			
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		BY	(;	C.B. Tu	zht.	per ne est	
	- гвогоямо гвоскам : If p drill or deepen directions						
preventer program, if any							is. Circ bioword
24. - 2 - 6 - 1	/ 1 -			Manager, Drilli	_	. 77. 1	10 1077
BIGNED	116422	TIT	1.86	Petroleum Engin	eering	DATE	. 12, 1977
(This space for Feder	ral or State office use)						
PERMIT NO.	43-009-30	032		AMBRONIA BATT		•	
S PRESENT NO.		<u> </u>		APPROVAL DATE		**************************************	
CONDITIONS OF APPROV	AL, IF ANY:		LE			DATE	

Well Name Clay Ba	sin Unit W	ell No. 41-S	. hoen	ol, ion SE NE	26-3N-24E
dellhend Equipment		<u>Size</u>	Prema Ra t i	arre	tt County, Uta Pressure Test
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Casing Spool					***************************************
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lubing Bonnet	10 x 4	offer and a second contract of the second con	3,00	00	6,000
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ill or Control Manif	ν] .l				
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ull Opening Drill Pip tabbing Valve on Floo			X Yen	No.	
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nticipated Bottom Hol	<u>le Pressurc</u>	500 PSI			

CHECKLIST TOOM: FOLIPMEN

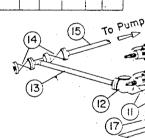
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17	Valves Sate Flux		. 治	. ,		
13	Compound Pressure Course					
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MOUNTAIN FUEL SUPPLY COMPANY 3000 psi Blowout Prevention Equipment

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DEVELOPMENT, PLAN FOR U.S.G.S. APPROVAL OF SURFACE USE MOUNTAIN FUEL SUPPLY COMPANY DRILLING WELLS

Well Name - Clay Basin Well No. 41-S

Field or Area - Clay Basin, Daggett County, Utah

1. Existing Roads -

- A) Proposed well site as staked Refer to well location plat No. M-12383 for location of well access road and directional reference stakes.
- B) Route and distance from nearest town or locatable reference point to where well access route leaves main road Refer to lateral map No. M-9030. From the Wyoming-Utah State Line to Rock Springs, Wyoming is 50 miles.
- C) Access road to location Refer to lateral map No. M-9030 and well site map No. M-12383 for access road from Wyoming-Utah State Line to Clay Basin Unit Well No. 41-S.
- D) If exploratory well, all existing roads within a 3-mile radius of well site Not an exploratory well
- E) If development well, all existing roads within a 1-mile radius This will be a storage development well. Refer to lateral map No. M-9030 for existing roads.
- F) Plans for improvement and/or maintenance of existing roads Λ11 existing roads will be maintained as needed by Mountain Fuel equipment. Λn existing trail as shown on drawing Nos. M-12383 and M-9030 will be improved.

2. Planned Access Road -

- A) Width 16' wide from shoulder to shoulder.
- B) Maximum grade The maximum grade on the road is 8 percent.
- C) <u>Turnouts</u> No turnouts will be constructed.
- D) <u>Drainage design</u> A drainage ditch on the uphill side of the road will be constructed. It will be a minimum of one foot below the surface of the road. No water diversion ditches are anticipated.
- E) Location and size of culverts and description of major cuts and fills $\frac{1}{1}$ No culverts are needed.
 - 2) No sidehill cuts
- F) Surfacing material No surfacing material will be needed either on the road or location.
- G) Necessary gates, cattle guards or fence cuts No cattle guards, gates, or fence cuts are anticipated.
- II) New or reconstructed rouds Refer to Joention plat No. M-12383.

3. Location of Existing Wells -

- A) Water wells None within a one mile radius.
- B) Abandoned wells None within a one mile radius.
- C) Temporarily abandoned wells None within a one mile radius.

- D) Disposal wells None within a one mile radius.
- E) Drilling wells No drilling wells within a one mile radius.
- F) Producing wells Clay Basin Well Nos. 15, 16, and 23 are productive gas wells.
- G) Shut-in wells None within a one mile radius.
- H) <u>Injection wells</u> Clay Basin Well Nos. 10 and 6 are injection/withdrawal storage wells.
- I) Monitoring or observation wells for other resources None within a one mile radius.
- 4. Location of Existing And/Or Proposed Facilities Refer to area map No. M-9030 A) 1) Tank batteries None within a one mile radius.
 - 2) <u>Production facilities</u> Each productive gas well has its own production facilities. Also, a compressor plant is located near Unit Well No. 3. Also, a compressor plant for injection is being built near Unit No. 3.

3) Oil gathering lines No oil gathering lines are located in the Clay Basin area.

- 4) Gas gathering lines Lateral Nos. 358, 432, and 292 are surface gas lines.
- 5) <u>Injection lines</u> Several injection/withdrawal lines are located within a one mile radius. Refer to area map No. M-9030.
- 6) Disposal lines None within a one mile radius.
- B) 1) Proposed location and attendent lines by flagging if off the well pad The well will be used as a gas storage well. A 6-inch buried line will be installed from the well to the central dehydration facilities as shown on drawing No. M-9030
 - 2) Dimensions of facilities Refer to drawing No. M-12205.
 - 3) Construction methods and materials No construction materials are anticipated. The dirt work will be done with a back hoe, i.e., ditches, dehydration base, take base, etc.
 - 4) Protective measures and devices to protect livestock and wildlife The sump pit will be fenced as shown on drawing No. M-12205.
- C) Plans for rehabilitation of disturbed area no longer needed for operations after construction is completed After construction is complete, areas of non-use will be restored and seeded.
- 5. Location and Type of Water Supply -

A) Location of water - The water withdrawal point on Red Creek is located in the SW 1/4 of Section 22, T.12N., R.105W., of the 6th P.M., Sweetwater County, Wyoming.

Method of transporting water - Water will be hauled by tank truck from Red Creek to Unit Well No. 41-S. The well access road, as shown on drawing No. M-9030, will be used as the water haul road.

C) Water well to be drilled on lease - No water well will be drilled.

6. Source of Construction Material -

- A) Information No construction material will be used.
- B) Identify if from Federal or Indian land -
- C) Where materials are to be obtained and used -
- D) Access roads crossing Federal or Indian lands -

7. Method for Handling Waste Disposal -

- A-D) Cuttings, drilling fluids, produced fluids, and sewage will be placed in the mud pit.
- E) Garbage and other waste material will be placed in the burn pit.
- F) After drilling operations have been completed, the location will be cleared of all litter, and the trash will be burned in the burn pit. The burn pit will be covered over. The mud pit liquids will be pumped out and dumped on the existing roads. The mud pit will be covered over.
- 8. Ancillary Facilities There now is a camp located in the NE 1/4 of Section 21, T.3N., R.24E. with housing and general camp facilities. A landing strip is located on the north line of Section 21. Water is piped to the camp from a spring to the west. 9. Well Site Layout -

See drawing Nos. M-12383 and M-12384.

10. Plans for Restoration of Surface -

- A) After drilling operations, the well site will be cleared and cleaned and the burn pit filled in. Should the well be a dry hole, the surface will be restored to the extent that it will blend in with the landscape. The reserve pit liquids will be pumped out and dumped on the existing roads.
- B) Revegetation and rehabilitation of the location and access road will be done to comply with Bureau of Land Management recommendations.
- C) Prior to rig release, pits will be fenced and so maintained until clean up.
- D) If oil is in the mud pit, overhead flagging will be installed to keep birds
- E) Clean up will begin within two months after drilling operations have been completed and the land will be restored at this time.

11. Other Information -

- \overline{A}) The location lies at the top of a deep canyon. The slope NW is $\pm 3\%$. The slope south is $\pm 20\%$. The soil is sandy. The vegetation is range grass, sagebrush, and cedar trees. The access road bears north to an existing trail. No cedar trees are located on the access road.
- B) The surface belongs to the U.S. Government.
- C) Water can be located in Red Creek. The Clay Basin camp is occupied by Mountain Fuel personnel. No historical, archaeological, or cultural sites are in the area to my knowledge.
- 12. Lessee's or Operator's Representative D. E. Dallas, Drilling Superintendent, P. O. Box 1129, Rock Springs, Wyoming 82901, telephone 307-362-5611.

13. Certification -

I hereby certify that I, or persons under my direct supervision, have inspected
the proposed drillsite and access route; that I am familiar with the conditions
which presently exist; that the statements made in this plan are, to the best of
my knowledge, true and correct; and, that the work associated with the operations
proposed herein will be performed by Mountain Fuel Supply Company
and its contractors and sub-contractors in conformity with this plan and the terms
and conditions under which it is approved.

Date	Name Wale Wallas I don	,
	Title Drilling Superintendent	

cdk

** FILE NOTATION	NS **
Date: Feb 16-	
Operator: Maritain Ju	el Germice
Well No: Class Basen 2	Luit 41-5
Location: Sec. 26 T. 3N R. 24F	County: Dieggett
File Prepared / ///	Entered on N.I.D.
Card Indexed / ///	Completion Sheet / //
CHECKED BY:	
Administrative Assistant	
Remarks:	
Petroleum Engineer	en e
Remarks:	
Director	S OF
Remarks:	July July Di
INCLUDE WITHIN APPROVAL LETTER:	
Bond Required //	Survey Plat Required
Order No. 164-1	Surface Casing Change
Rule C-3(c), Topographic exception/co within a 660' radius of	impany owns or controls acreage c:
0.K. Rule C-3 / / O.K.	In Clay Sasen unit IV
Other:	
10) Netter	
Letter	- Written/A pproved

INTEROFFICE COMMUNICATION

From T. M. Colson	Rock Springs.	Wyoming
	City	STATE
R. G. Myers	DATE May 2, 1977	

Unit Well No. 41-S
Clay Basin Field

Attached for your information and files is a tentative plan to drill the above-captioned well. This plan was written in accordance with the Geologic Prognosis dated February 11, 1977.

TMC/gm

Attachment

cc: R. D. Cash

E. R. Keller (3)

G. A. Peppinger (3)

A. J. Marushack

A. K. Zuehlsdorff

D. E. Dallas

A. J. Maser (3)

J. E. Adney

E. J. Widic

B. M. Steigleder

E. A. Farmer

D. L. Reese

U.S.G.S.

State

Paul Zubatch

P. E. Files (4)



From: Pat Brotherton

Rock Springs, Wyoming

To: T. M. Colson

May 2, 1977

Tentative Plan to Drill Unit Well No. 41-S Clay Basin Field

This well will be drilled to total depth by ______ Drilling Company. One work order has been originated for the drilling and completion of this well, namely 20051, Drill Unit Well No. 41-S, Clay Basin Field, located in the NW NE Sec. 26, T. 3 N., R. 24 E., Daggett County, Utah. An 8-3/4-inch hole will be drilled to a total depth of 6280 feet and 7-inch 0.D. casing run. It is planned to complete the well as a gas storage well in the Dakota formation. Surface elevation is at 6810 feet.

- 1. Drill 12-1/4-inch hole to approximately 330 feet KBM.
- 2. Run and cement approximately 300 feet of 9-5/8-inch 0.D., 36-pound, K-55, 8 round thread, LT&C casing. The casing will be cemented by Dowell with 165 sacks of regular Type "G" cement with 5 percent D43-A, which represents theoretical requirements plus 100 percent excess cement for 9-5/8-inch 0.D. casing in 12-1/4-inch hole with cement returned to surface. Plan on leaving a 10 foot cement plug in the bottom of the casing after displacement is completed. Floating equipment will consist of a Baker guide shoe. The top and bottom of all casing collars will be spot welded in the field and the guide shoe will be spot welded to the shoe joint in the Rock Springs Machine Shop. The bottom of the surface casing should be landed in such a manner that the top of the 10-inch 3000 psi casing flange will be at ground level. A cellar three feet deep will be required. Prior to cementing, circulate 50 barrels of mud. Capacity of the 9-5/8-inch 0.D. casing is 24 barrels.
- 3. After a WOC time of 6 hours, remove the landing joint and wash off casing collar. Install a NSCo. Type "B" 10-inch 3000 psi regular duty casing flange tapped for 9-5/8-inch O.D. casing. Install a 2-inch extra heavy nipple, 6-inches long, and

a Demco (2000 psi WOG, 4000 psi test) ball valve on one side outlet of the casing flange and a 2-inch extra heavy bull plug in the opposite side. Install a 10-inch 3000 psi double gate hydraulically operated blowout preventer with blind rams in the bottom and 4-1/2-inch rams in the top and finish nippling up. After a WOC time of 12 hours, pressure test surface casing, all preventer rams, and Kelly-cock to 1000 psi for 15 minutes using rig pump and drilling mud. The burst pressure rating for 9-5/8-inch 0.D., 36-pound, K-55, 8 round thread, LT&C casing is 3520 psi.

Geological Department may recommend. The mud will consist of 2 percent potassium chloride water to 4500 feet. Mud up with the potassium Dexdrid Drispac system at this point to allow a 10 cc. water loss at 5980 feet. The 10 cc. water loss will be maintained to total depth at 6280 feet. If lost circulation is encountered, only acid soluble lost circulation material will be used. A mud cleaner will be used from surface to total depth to remove undesirable solids from the mud system and to keep the mud weight to a minimum. A Company Geologist will be on location to check cutting samples; 10 foot samples from 5400 feet to total depth. Anticipated tops are as follows:

	Approximate Depth (Feet KBM)
Mancos	Surface
Frontier	5,685
Mowry	5,895
Dakota	6,080
Morrison	6,236
Total Depth	6,280

Objective Reservoir: Dakota Formation

Other Possible

Producing Zones: Frontier Formation

- 5. Run a laterolog 7 with a split 4-decate logarithmic scale from surface casing to total depth. Run a compensated density/gamma ray/caliper from total depth at 6280 feet to 4280 feet. The 2000 feet logged represents the minimum footage for the log.
- 6. Assuming gas storage zones of good quality are present as indicated by log analysis, go into hole with 8-3/4-inch bit and drill pipe to total depth to condition mud prior to running production casing. Pull bit laying down drill pipe and drill collars.
- 7. Run 7-inch O.D. casing as outlined in Item No. I, General Information, through the deepest producing zone as indicated by log analysis. A Baker 7-inch O.D., 8 round thread, Type G circulating differential fillup collar and guide shoe will be run as floating equipment. Rig up Dowell and cement casing with 50-50 Pozmix "A" cement. Bring cement top behind the 7-inch O.D. casing, 1000 feet above the uppermost producing zone as indicated by log analysis. Circulate 300 barrels of drilling mud prior to beginning cementing operations. Capacity of the 7-inch O.D. casing is approximately 247 barrels. Cement requirements will be based on actual hole size as determined by the caliper portion of the formation density log. Rotate casing while circulating, mixing, and displacing cement. Displace cement with water. Bump plug with 2500 psi and hold for 15 minutes to pressure test casing. Minimum burst pressure of the 7-inch O.D., 23-pound, K-55 casing is 4360 psi.
- 8. Immediately after cementing operations are completed, land the 7-inch O.D. casing with full weight of casing on slips in the 10-inch 3000 psi casing flange and record indicator weight. Install NSCo. Type DP-7, 10-inch 3000 psi by 6-inch

3000 psi tubing spool. Pressure test primary and secondary seals to 2500 psi for 5 minutes. Minimum collapse pressure for 7-inch O.D., 23-pound, K-55, 8 round thread, LT&C casing is 3280 psi. Install a steel plate on the 6-inch 3000 psi tubing spool flange.

- 9. Release drilling rig and move off location.
- 10. Move in and rig up a completion rig.
- 11. Install a 6-inch 5000 psi hydraulically operated double gate preventer with blind rams on bottom and 2-3/8-inch tubing rams on top.
- 12. After a WOC time of at least 50 hours, rig up Dresser Atlas and run bond log and perforating formation control log from plugged back depth to top of cement behind the 7-inch O.D. casing.
- 13. After a WOC time of at least 56 hours, pick up and run a 6-1/4-inch bit on 2-3/8-inch O.D., 4.7-pound, V-55, 8 round thread, EUE tubing to check plugged back depth. Rig up and displace drilling mud out of hole with drip oil. Pull and lay down 2-3/8-inch O.D. tubing.
- 14. Rig up Dresser Atlas perforating truck and perforate the Dakota storage sand with 2 HPF jumbo jet shots. The interval to be perforated will be chosen after the open hole logging has been reviewed and evaluated.
- 15. Rig up Dresser Atlas and run a Baker Model FB-1 packer (size 87-40) as follows:

 Baker Model FB-1 packer (4.0-inch I.D. through packer)
 - 6 foot Baker millout extension (4.0-inch I.D.).
 - 10 foot Baker seal bore protector (4.0-inch I.D.) changeover.
 - 6 foot 3-1/2-inch O.D., 9.2-pound, J-55, 8 round EUE pup joint.

Baker Model "F" non-ported seating nipple (size 2.81).

6 foot 3-1/2-inch O.D., 9.2-pound, J-55, 8 round EUE pup joint.

Baker Model "R" non-ported no-go seating nipple (size 2.75).

Set packer so that the bottom of the assembly is 30 feet above the perforations.

Perforations will be chosen after the open-hole logging is completed.

16. Install 4-1/2-inch rams in preventer. Pick up a Baker locator seal assembly and a Baker Model "L" sliding sleeve and run tubing as follows:

1 NSCo. DP4-H-1 tubing hanger tapped 4-1/2-inch 0.D., 8 round thread, LT&C, top and bottom.

4-1/2-inch O.D., 11.6-pound, J-55, 8 round thread, LT&C pup joints, as required to space out.

Approximately 187 joints 4-1/2-inch O.D., 11.6-pound, J-55, 8 round thread, LT&C tubing.

Baker Model "L" 4-1/2-inch O.D. sliding sleeve (size 3.812), in open position.

1 6 foot 4-1/2-inch O.D., 11.6-pound, J-55 pup joint.

Baker Model "G" locator seal assembly with 10 feet of seal extensions (I.D. 3.0-inches).

Land tubing in packer with 10,000 pounds compression. Space out and land in wellhead.

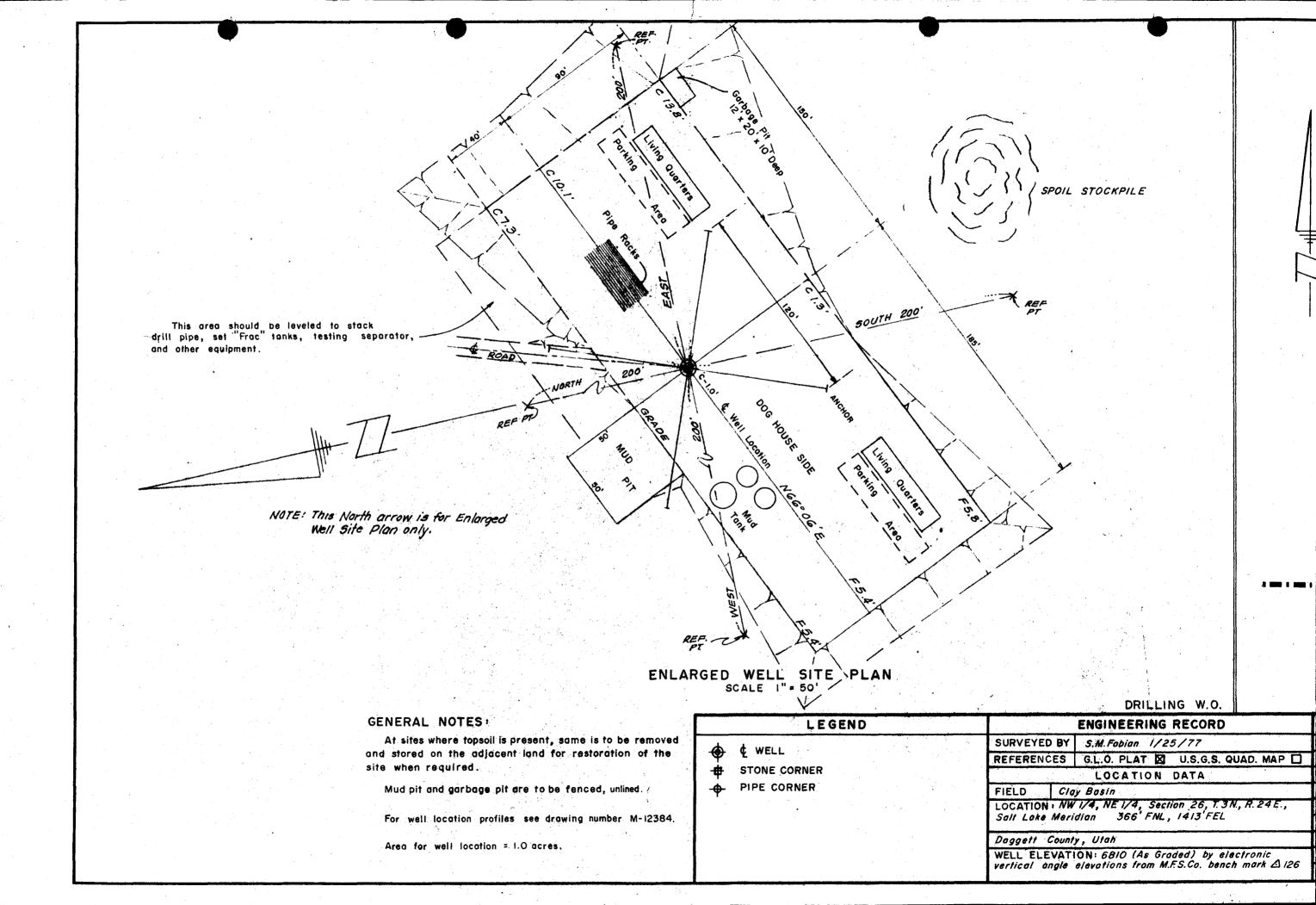
- 17. Install upper portion of wellhead.
- 18. Swab fluid out of wellbore. Run a short production test.

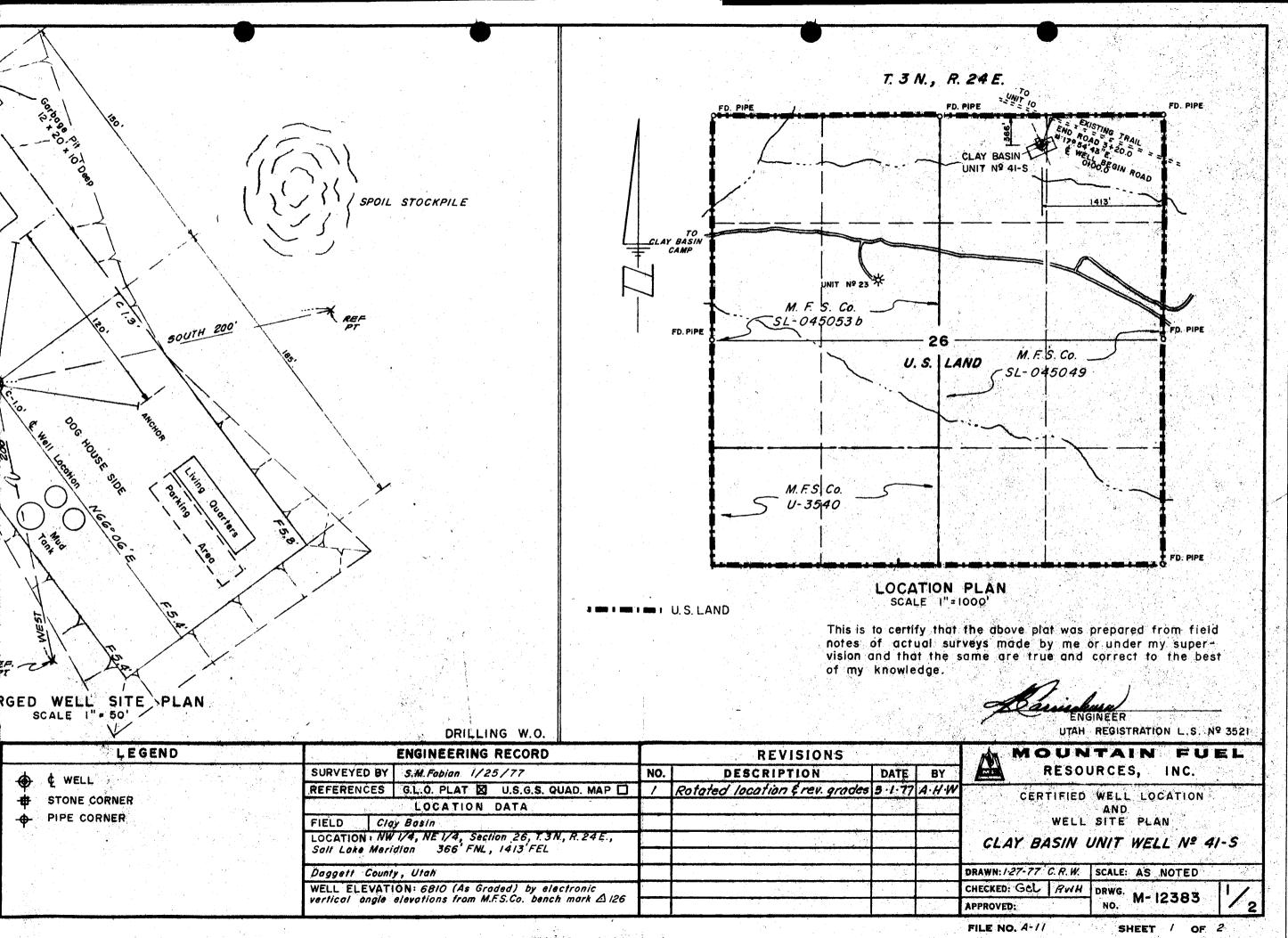
GENERAL INFORMATION

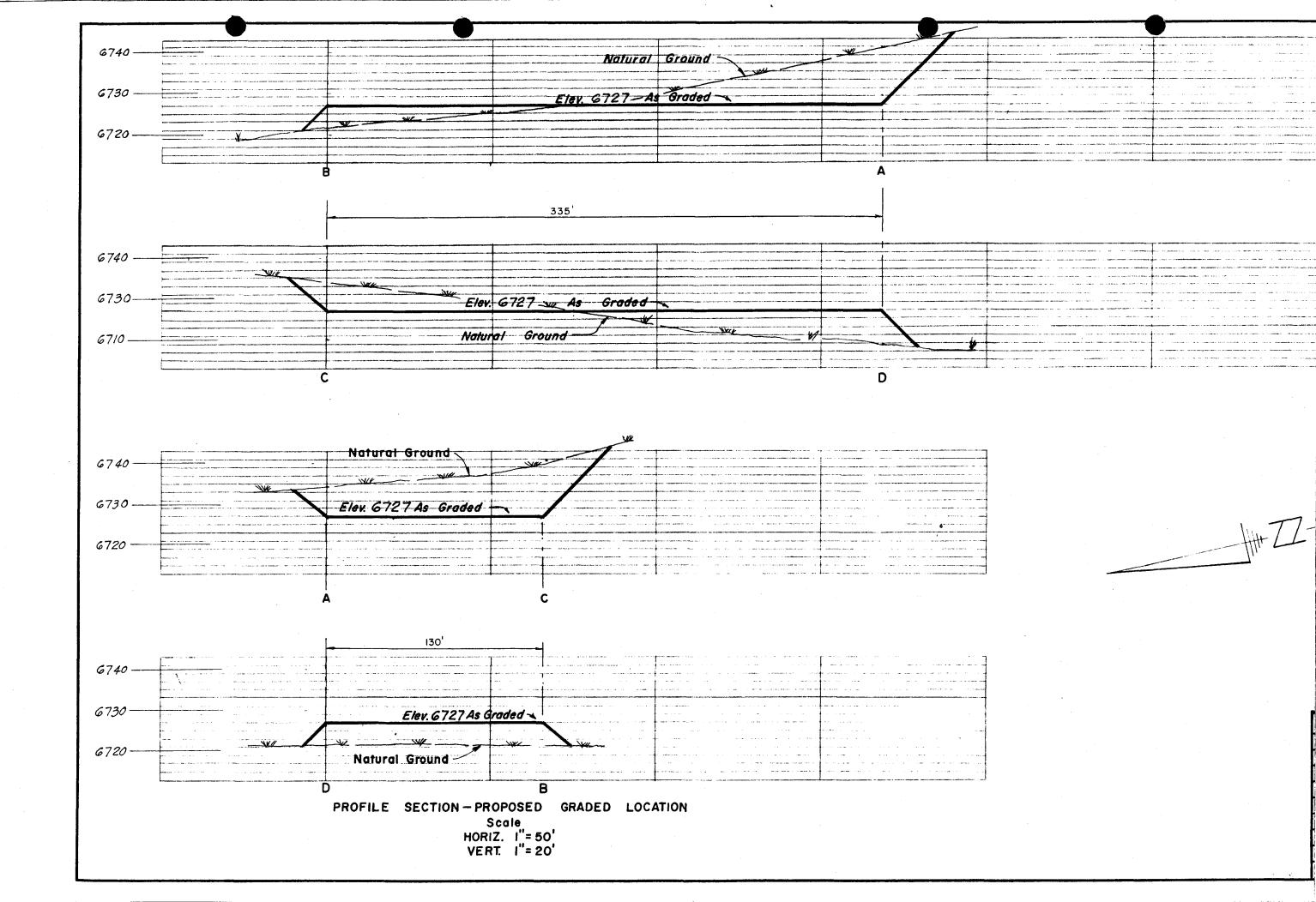
I. The following tubular goods have been assigned to the well.

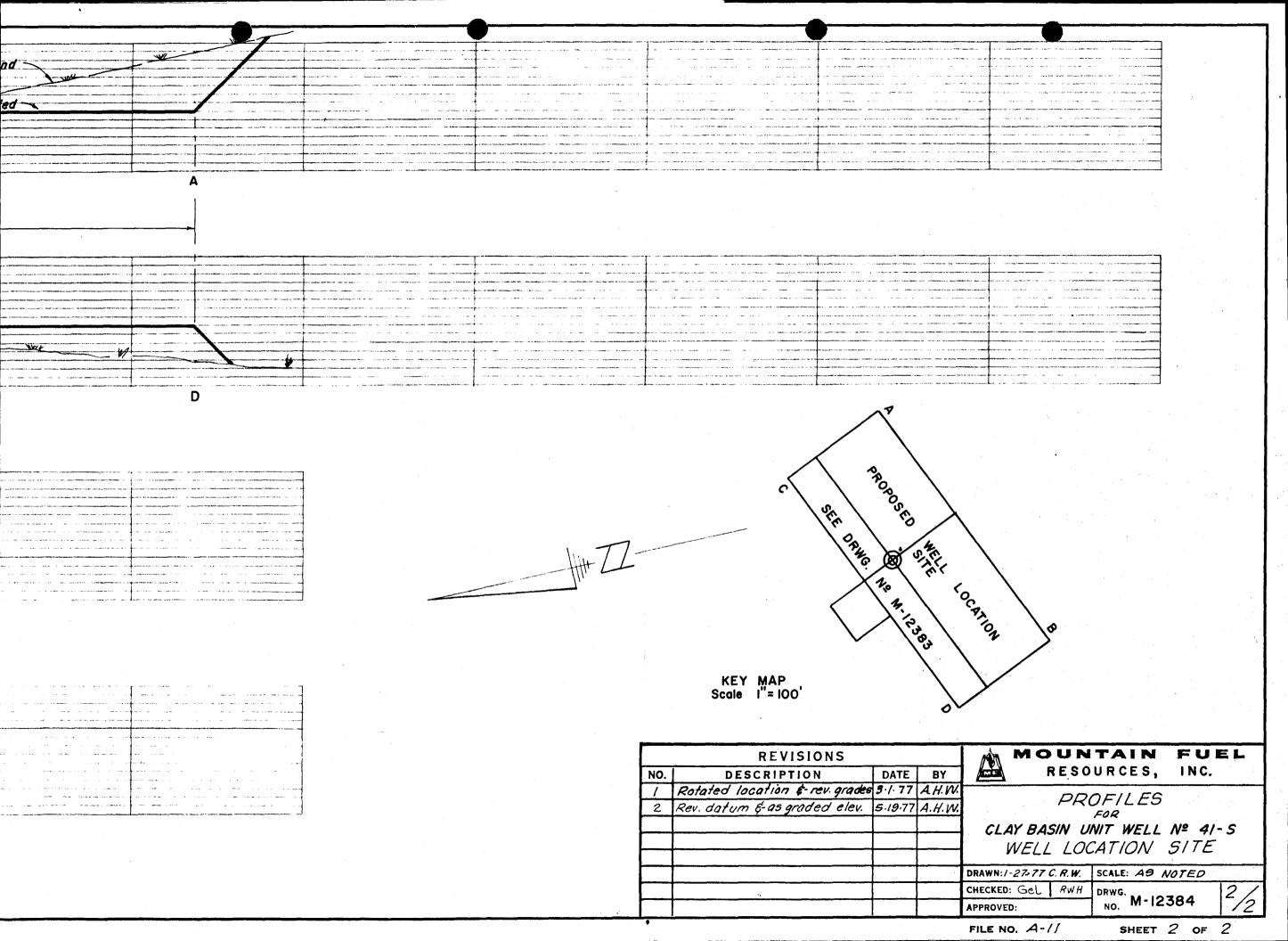
Description	Approximate Gross Measurement (feet)	Availability		
9-5/8-inch O.D., 36-pound, K-55,	Surface Casing			
8 round thread, LT&C casing	330	Warehouse Stock		
7-inch O.D., 23-pound, K-55, 8 round thread, LT&C casing	Production Casing			
(Bottom 400 feet will be rough coated)	6,400	Warehouse Stock		
	Production Tubing			
4-1/2-inch O.D., 11.6-pound, J-55, 8 round thread, LT&C tubing	6,400	Warehouse Stock		

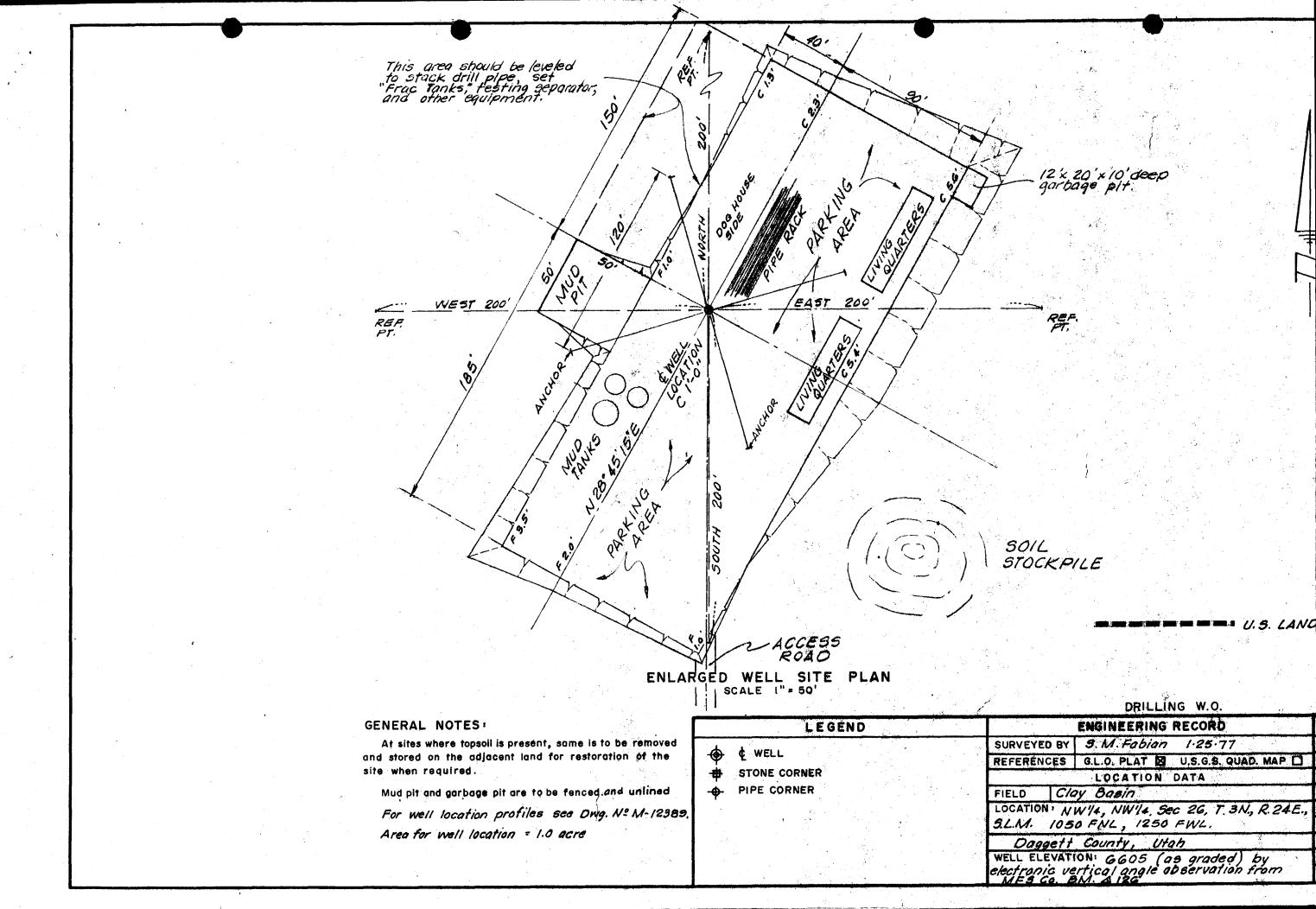
- II. All ram type preventers will have hand wheels installed and operative at the time the preventers are installed.
- III. Well responsibility D. L. Reese or G. G. Francis

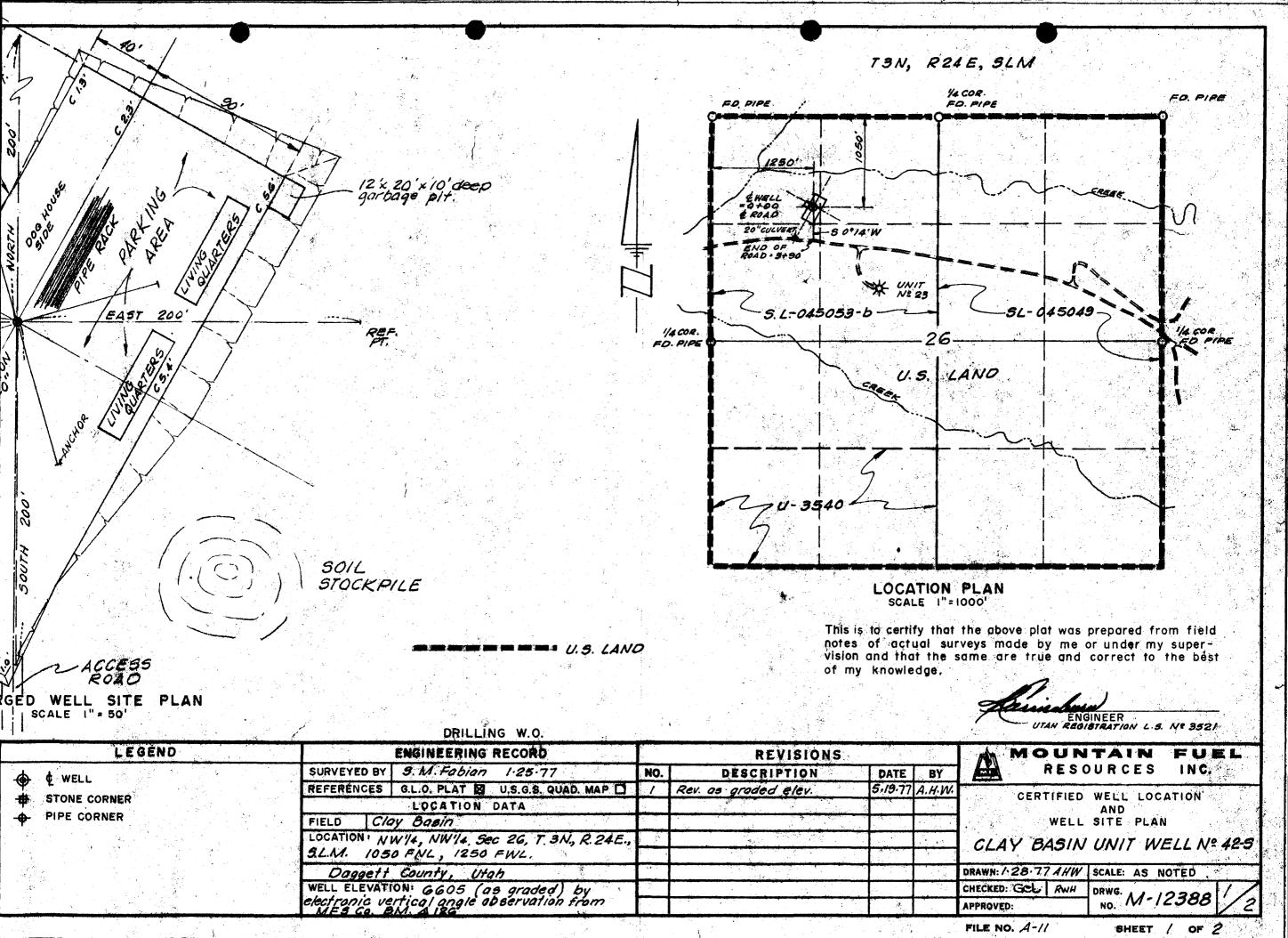


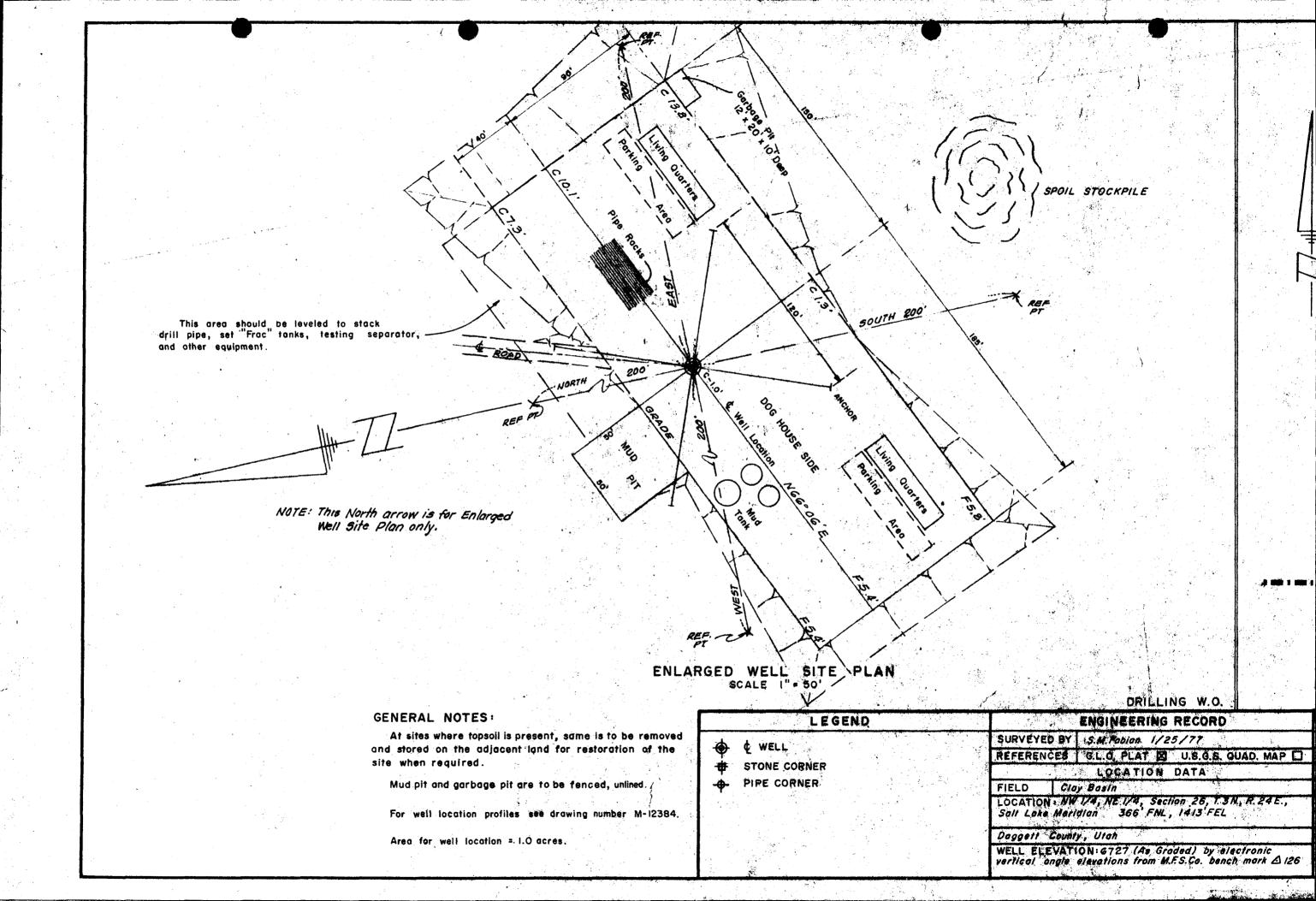


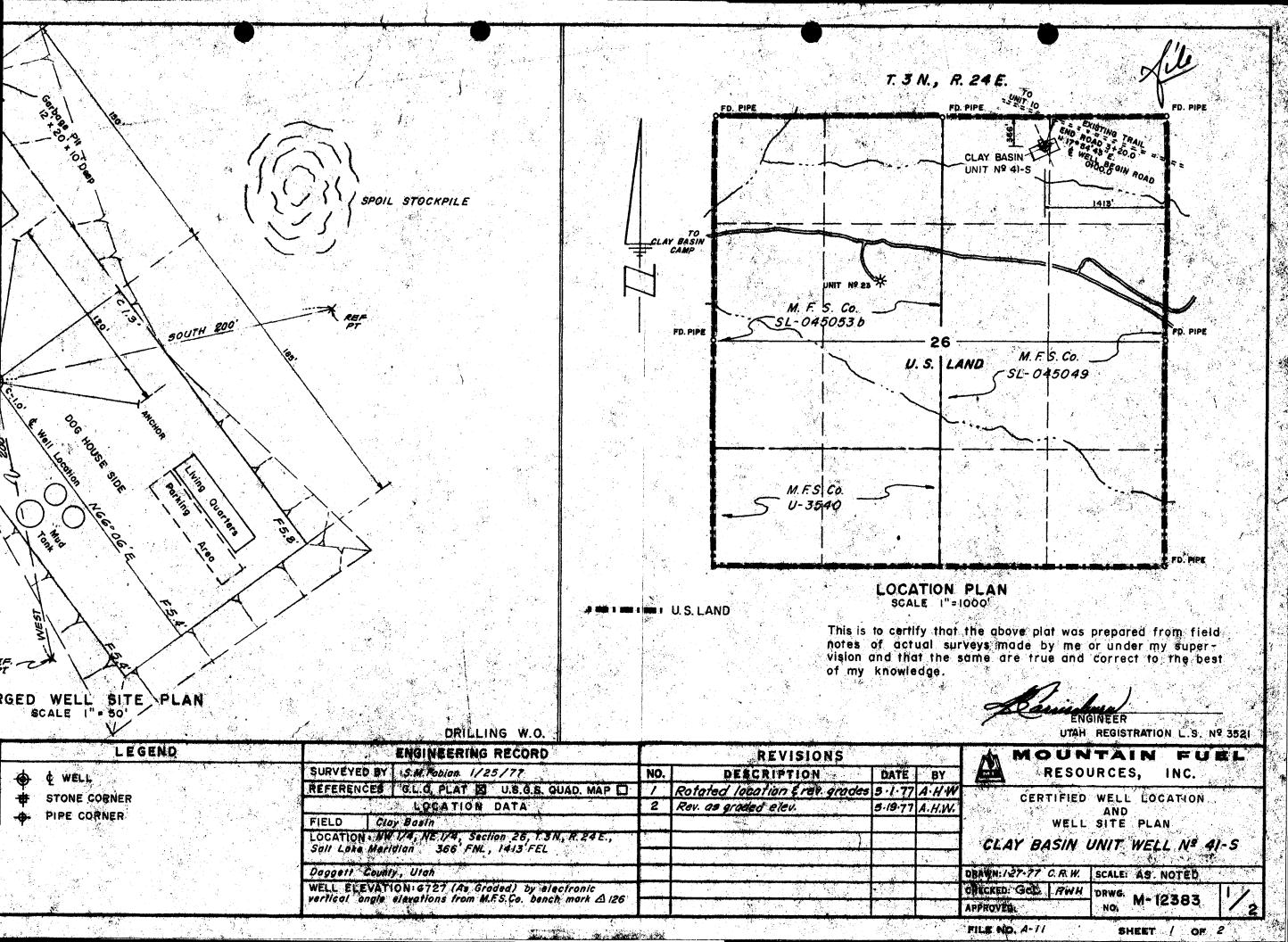












Form 9-331 (May 1963)

UNITED STATES

SUBMIT IN TRIPLICATE.

Form approved.

	MENT OF THE INTER	IOR (Other instructions on reverse side)	5. LEASE DESIGNATION SLC - 045049	
	ICES AND REPORTS (sals to drill or to deepen or plug aTION FOR PERMIT—" for such p		6. IF INDIAN, ALLOTTER	
1. OIL GAS OTHER	Gas Storage		7. UNIT AGREEMENT NA Clay Basin G Storage Agree	as ement
Mountain Fuel Reso	urces, Inc.		8. FARM OR LEASE NAM Unit Well	.16
P. O. Box 1129,	Rock Springs, Wyom		9. WELL NO. 41-9	3
4. LOCATION OF WELL (Report location of See also space 17 below.) At surface 366 FNL, 1413 F		State requirements.	Clay Basin Ga 11. SEC., T., E., M., OR B SURVEY OR AREA	as Storage
14. PERMIT NO.	15. ELEVATIONS (Show whether DE	F, RT, GR, etc.)	NW NE 26-3N- 12. COUNTY OF PARISH	
API No.: 43-009-30032	KB 6740.90'	GR 6727'	Daggett	Utah
16. Check Ap	propriate Box To Indicate N	Nature of Notice, Report, or Ot	ther Data	
NOTICE OF INTEN	TION TO:	SUBSEQUE	NT REPORT OF:	
FRACTURE TREAT SHOOT OR ACIDIZE	PULL OR ALTER CASING MULTIPLE COMPLETE ABANDON* CHANGE PLANS	water shut-off fracture treatment shooting or acidizing (Other) Supplementar (Note: Report results of Completion or Recomple	of multiple completion of tion Report and Log for	SING X
265.77' KBM and secement in place 5-with 570 sacks 50-released May 27, 19 Moved in completion 6022' to 6040' and	t with 180 sacks reg 18-77; landed 7" OD, 50 Pozmix cement wit 977. n tools on 6-3-77, p 6073' to 6085' with -1/2" tubing at 5903	landed 9-5/" OD, 32.3# ular G cement with 3% 23#, K-55, casing at h 2% gel, cement in plerforated Dakota from 2 jumbo jet shots per .67', swabbed well in,	calcium chlori 6265.01' and s ace 5-26-77, i 6000' to 6013' foot, set pac	ide, set rig ,
18. I hereby certify that the foregoing is	true and correct M	anager, Drilling and		
SIGNED S. S. Myer		etroleum Engineering	DATE June 9	, 1977

DATE .

TITLE .

APPROVED BY ________CONDITIONS OF APPROVAL, IF ANY:

1a. TYPE OF WELL:

NEW X

2. NAME OF OPERATOR

3. ADDRESS OF OPERATOR

At surface

At total depth

API No.:

5-18-77

20. TOTAL DEPTH. MD & TVD

15. DATE SPUDDED

6275**'**

b. TYPE OF COMPLETION:

Other Gas

NW

NE

Dakota

DATE ISSUED

KB 6740.90'

Other

Rock Springs, Wyoming 82901

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

RESVR.

<u> ျားရာရှိသူ</u>က

1413' FEL

14. PERMIT NO.

6 - 8 - 77

(See other instructions on reverse side)

Form approved. Budget Bureau No. 42-R355.5.

5. LEASE DESIGNATION AND SERIAL NO. SLC - 045049 6. IF INDIAN, ALLOTTEE OR TRIBE NAME 7. UNIT AGREEMENT NAME Clay Basin Gas Storage Agreement S. FARM OR LEASE NAME Unit Well 9. WELL NO. 41-S 10. FIELD AND POOL, OR WILDCAT Clay Basin Gas Storage 11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

NW NE 26-3N-24E

12. COUNTY OR 13. STATE Utah ·

Daggett 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* GR 6727

PARISH

19. ELEV. CASINGHEAD

22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY ROTARY TOOLS 0-6275!

24. PRODUCING INTERVAL(S), OF THIS COMPLETION-TOP, BOTTOM, NAME (MD AND TVD). 21.19% 25. WAS DIRECTIONAL SURVEY MADE No

CABLE TOOLS

26. TYPE ELECTRIC AND OTHER LOGS RUN

43-009-30032

5-25-77

Dual Laterolog, Compensated Densilog

DEEP-EN

Mountain Fuel Resources, Inc.

366' FNL,

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements).

16. DATE T.D. REACHED | 17. DATE COMPL. (Ready to prod.)

21. PLUG, BACK T.D., MD & TVD

6000-6013', 6022-6040', 6073-6085'

WORK OVER

P. O. Box 1129,

At top prod. interval reported below

27. WAS WELL CORED No

CASING RECORD (Report all strings set in well) CASINO SIZE WEIGHT, LB./FT. DEPTH SET (MD) HOLE SIZE CEMENTING RECORD AMOUNT PULLED 世界诗: 12-1/4" 9-5/8" 265.77' 32.3# 180 6.265.01' 8-1/2" 570 0 23#

LINER RECORD TUBING RECORD PACKER SET (MD) SIZE TOP (MD) BOTTOM (MD) SACKS CEMENT* SCREEN (MD) SIZE DEPTH SET (MD) 5900**'** 5,903.67' 4-1/2

31. PERFORATION RECORD (Interval, size and number)

6000-6013', 6022-6040', 6073-6085', jumbo jet, 2 holes per foot

ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION DATE FIRST PRODUCTION WELL STATUS (Producing or PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Shut in Flowing - GAS STORAGE CHOKE SIZE PROD'N. FOR TEST PERIOD GAS-OIL BATIO DATE OF TEST HOURS TESTED OIL-BBL. GAS-MCF. WATER-BBL. GAS-MCF. CALCULATED 24-HOUR RATE FLOW, TUBING PRESS. CASING PRESSURE WATER-BBL. OIL GRAVITY-API (CORR.) 34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY

35. LIST OF ATTACHMENTS

Logs as above, Well Completion to be sent at a later date.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
Manager, Drilling and

SIGNED _______.

Petroleum Engineering TITLE

DATE June 9, 1977

INSTRUCTIONS

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments pplicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency and 24, and 33, below regarding separate reports for separate completions. to applicable Federal and/or State laws and regulations. See instructions on items 22 submitted, particularly and/or State office. or both, pursuant

1 If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State should be listed on this form, see item 35.

Hem 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Hem 22. If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, or Federal office for specific instructions. for each additional interval

tool. or intervals, top(s), bottom(s) and name(s) (m any) and interval additional data pertinent to such interval.

additional interval to be separately produced, showing the additional data pertinent to such multiple stage cementing and the location of the cementing tool

"Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool

"Sacks Cement": Attached supplemental records for this well interval to be separately produced. (See instruction for items 22 and 24 above.) Hem 29: tem 33:

77H Agres	P	TRUE VERT. DEPTH	STATE OF THE STATE OF THE SECTION OF
GEOLOGIC MARKERS	TOP	MEAS. DEPTH	Thomas Treatment of the control of t
GEOLOG			ACCOMPANY OF STANDARD
38.	4	A MARK	Log tops Mancos Frontier Mowry Morrison Morrison Morrison Morrison Morrison Morrison
'S THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING EN, PLOWING AND SHUT-IN PRESSURES, AND RECOVERIES	DESCRIPTION, CONTENTS, ETC.	i.e.	8-77
MARY OF POROUS ZONES: Show all important zones of porosity and contents thereof; depth interval tested, cushion used, time tool open, flowing	BOTTOM		AND THE PROPERTY OF THE PROPER
OUS ZONES: TANT ZONES OF POS TESTED, CUSHION	TOP		
37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF DEPTH INTERVAL TESTED, CUSH	FORMATION	300	The symplection of the sent at

AT

6 3 4 (1) 4

GP 0 870-401

115

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11

Charley 14 June 30 Clay Buxin U#41-8 Sec 24, 3N, 24E 42-381 50 SHEETS 5 SQUARE 42-389 200 SHEETS 5 SQUARE A2-389 200 SHEETS 5 SQUARE ANTIONAL muternin uvell head. access road

COMPLETION REPORT

Well: Clay Basin Unit No. 41-S	Date:	October 6, 1977
Area: Clay Basin	Lease No:	SLC 045049
New Field Wildcat Gas Storage New Pool Wildcat Extension	. —	mallower Pool Test
Location: 366 feet from North line, 1413	_ feet from	East line
$\frac{1}{1}$ NE $\frac{1}{1}$		P
Section 26, Township 3 North	, Range _	24 East
County: Daggett	_State: _	Utah
Operator: Mountain Fuel Resources, Inc.		
Elevation: KB 6740.90 Gr 6727 Total Depth: Drill	er <u>6275</u>	Log <u>6264</u>
Drilling Commenced: May 18, 1977 Drilling Co	ompleted:	May 26, 1977
Rig Released: May 27, 1977 Well Compl	eted:	June 8, 1977
Sample Tops: (unadjusted)	Log Tops	3:
	Mancos Frontier Mowry Dakota Morrison	5830 (911) 5990 (751)
Sample Cuttings: None		
Status: Gas storage injection/withdrawal woll		
One was the state of the state		
11:)	, 2 holes _l	per foot
none reported		
Plug Back Depth: 6239		•
Plugs: None		
Tole Size: 12-1/4" to 314; 8-3/4" to 5501; 8-1/2" to 6275		
asing/Tubing: 9-5/8" to 265.77, 7" to 6265.01; 4-1/2" to set at 5900 gging - Mud: None	5903.67 v	with packer
Mechanical: Dual Laterolog (256-6252) Compensated Densilog (4263-6263) Contractor: Westburne Drilling Inc.		
Completion Report Prepared by: M. L. Tomac		
Remarks: API No. 4300930032		

Fage 2

O MPIETICH REPORT (cont.)

Well: Unit No. 41-S

Area: <u>Clay Basin</u>

Cored Intervals (recovery): None

Cabulation of Drill Stem Tests: None

c. Interval THP TFP (min.) ISTP (min.) FFP (min.) FDTP (min.) FHP Samples Caught Remarks

.



QUESTAR PIPELINE COMPANY

79 SOUTH STATE STREET • P. O. BOX 11450 • SALT LAKE CITY, UTAH 84147 • PHONE (801) 530-2400 June 23, 1988 CERTIFIED MAIL

RETURNED RECEIPT REQUESTED #P 879 571 459

Bureau of Land Management Utah State Office CFS Financial Center 324 S. State Street Salt Lake City, UT 84111-2303

Re: Name Change

Mountain Fuel Resources, Inc. to Questar Pipeline Company

Gentlemen:

Enclosed for your files and information is a certified copy of the Articles of Amendment to the Articles of Incorporation of Mountain Fuel Resources, Inc. dated March 7, 1988, indicating that Mountain Fuel Resources, Inc. changed its name to Questar Pipeline Company.

Questar Pipeline Company holds interests in the following Federal Oil and Gas Leases in Utah:

Please note and adjust your records in accordance with the above and furnish verification of your receipt of this notice to the undersigned.

Sincerely,

J. B. Neese Senior Landman

JBN/sdg

Enclosure

List of Leases

Overriding Royalties

U-09712-A U-011246

Operating Rights

SL-045051-A & B SL-045053-A & B SL-062508 SL-0709555 SL-070555-A SL-045049-A1B

Clay Basin Gas Storage Agreement Agreement No. 14-08-0001-16009

3100 U-09712-A et al (U-942)

DECISION

Questar Pipeline Company

P.O. Box 11450

Oil and Gas Leases U-09712-A et al

Salt Lake City, Utah 84147

Corporate Name Change Recognized

Acceptable evidence has been received establishing that Mountain Fuel Resources, Inc. has changed their name to Questar Pipeline Company. Accordingly, the surviving company, Questar Pipeline Company, is recognized as holding all interests in Federal oil and gas leases which were held by Mountain Fuel Resources, Inc. We are changing our records with respect to the attached listing of oil and gas leases. If there are any other leases that will be affected, please contact this office.

/s/ M. Willis

Chief, Minerals ACTING Adjudication Section

Enclosure List of Leases

cc: All District Offices, Utah

MMS, AFS MMS, BRASS

920, Teresa Thompson Clay Basin Unit File

CSeare:s1 3/9/89:1642f

RECEIVED

JAN 2 8 2004

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

X Operator Name Change

5. If NO, the operator was contacted contacted on:

Merger

The operator of the well(s) listed below	w has chan	ged, eff	ective:		3	/7/1988		
FROM: (Old Operator):	TO: (New Operator):							
N1070-Wexpro Company					r Pipeline Con	npany		
PO Box 45360				-	x 11450	- P J		
Salt Lake City, UT 84145-0360					ke City, UT 84	1147		
Phone: 1-(801) 534-5267				Phone: 1-(801)				
CA	No.			Unit:	7 550 2017			
WELL(S)				CIII.				
NAME	SEC	TWN	RNG	API NO	ENTITY	LEASE	WELL	WELL
					NO	TYPE	TYPE	STATUS
LAY BASIN UNIT 39-S	21	030N	240E	4300930030		Federal	GS	A
LAY BASIN UNIT 48-S	21	030N		4300930044		Federal	GS	A
LAY BASIN UNIT 50-S	21	030N	240E	4300930046		Federal	GS	A
LAY BASIN UNIT 51-S	21	030N	240E	4300930047	1025	Federal	GS	A
LAY BASIN UNIT 58-S	21	030N	240E	4300930054	1025	Federal	GS	A
LAY BASIN UNIT 60-S	21	030N	240E	4300930056	1025	Federal	GS	Α
LAY BASIN U 11 (RD MURPHY 6-W)	22	030N	240E	4300915635	1025	Federal	GS	Α
LAY BASIN 28-S	22	030N	240E	4300930021	1025	Federal	GS	Α
LAY BASIN UNIT 32-S	22	030N	240E	4300930023	1025	Federal	GS	A
LAY BASIN UNIT 36-S	22	030N	240E	4300930027	1025	Federal	GS	A
LAY BASIN UNIT 54-S	22	030N	240E	4300930050	1025	Federal	GS	A
LAY BASIN U 6 (RD MURPHY 3)	23	030N	240E	4300915630	1025	Federal	GS	Α
LAY BASIN U 10 (1 CL SPARKS)	23	030N	240E	4300915634	1025	Federal	GS	A
LAY BASIN UNIT 29-S	23	030N	240E	4300930020	1025	Federal	GS	A
LAY BASIN UNIT 31-S				4300930022	1025	Federal	GS	Α
LAY BASIN UNIT 44-S				4300930040	1025	Federal	GS	Α
LAY BASIN UNIT 45-S		030N		4300930041		Federal	GS	A
LAY BASIN UNIT 57-S				4300930053		Federal	GS	Α
LAY BASIN UNIT 41-S				4300930032		Federal	GS	A
LAY BASIN UNIT 42-S				4300930033	1025	Federal	GS	Α
LAY BASIN UNIT 43-S	26	030N	240E	4300930039	1025	Federal	GS	A
PERATOR CHANGES DOCUMEN nter date after each listed item is completed (R649-8-10) Sundry or legal documentation (R649-8-10) Sundry or legal documentation	was recei	ved from		•	•	1/13/200	4_	
(R649-8-10) Sundry or legal documentation The new company was checked on the Department of the Depart				•	•	1/13/200 abase on:	<u>4</u>	1/14/200
Is the new operator registered in the State of	f Utah:		YES	Business Numb	er: (5491 72-0 14	12	

6.	(R649-9-2) Waste Management Plan has been received on:	IN PLACE	· <u>·</u> -
7.	Federal and Indian Lease Wells: The BLM and or the or operator change for all wells listed on Federal or Indian leases		red the merger, name change, 3/9/1989
8.	Federal and Indian Units: The BLM or BIA has approved the successor of unit operator f	or wells listed on:	n/a
9.	Federal and Indian Communization Agreements (The BLM or BIA has approved the operator for all wells listed	•	n/a
10	. Underground Injection Control ("UIC" The Division for the enhanced/secondary recovery unit/project for the water division of the enhanced of the water division of the enhanced of the enhan		
D.	ATA ENTRY:		
1.	Changes entered in the Oil and Gas Database on:	1/29/2004	_
2.	Changes have been entered on the Monthly Operator Change S	pread Sheet on:	1/29/2004
3.	Bond information entered in RBDMS on:	1/29/2004	_
4.	Fee wells attached to bond in RBDMS on:	1/29/2004	_
5.	Injection Projects to new operator in RBDMS on:	n/a	_
ST	ATE WELL(S) BOND VERIFICATION:		
1.	State well(s) covered by Bond Number:	965003032	-
FF	DERAL WELL(S) BOND VERIFICATION:		The second secon
1.	Federal well(s) covered by Bond Number:	965002976	_
	DIAN WELL(S) BOND VERIFICATION: Indian well(s) covered by Bond Number:	n/a	_
	E WELL(S) BOND VERIFICATION: (R649-3-1) The NEW operator of any fee well(s) listed covered by	by Bond Number	965003033
	The FORMER operator has requested a release of liability from the Division sent response by letter on:	neir bond on: N/A	N/A
	ASE INTEREST OWNER NOTIFICATION: (R649-2-10) The FORMER operator of the fee wells has been cor of their responsibility to notify all interest owners of this change o		ed by a letter from the Division
CC	MMENTS:		

NEW ENTITY NUMBERS ASSIGNED FEBRUARY 2004

ACCT	OPERATOR NAME	API NUM.	Sec	Twnshp	Rng	WELL NAME	ENTITY	EFF DATE	REASON
N7560	Questar Pipeline Co	4300930050	22	030N	240E	Clay Basin Unit 54-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300915630	23	030N	240E	Clay Basin U 6 (RD Murphy 2	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300915634	23	030N	240E	Clay Basin U 10 (1 CL Sparks	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930020	23	030N	240E	Clay Basin Unit 29-S	1025 to 14040	1	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930022	23	030N	240E	Clay Basin Unit 31-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930040	23	030N	240E	Clay Basin Unit 44-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930041	23	030N	240E	Clay Basin Unit 45-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930053	24	030N	240E	Clay Basin Unit 57-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930032	26	030N	240E	Clay Basin Unit 41-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930033	26	030N	240E	Clay Basin Unit 42-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930039	26	030N	240E	Clay Basin Unit 43-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930042	26	030N	240E	Clay Basin Unit 46-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930051	26	030N	240E	Clay Basin Unit 55-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930052	26	030N	240E	Clay Basin Unit 56-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300915628	27	030N	240E	Clay Basin U 4 (ES Lauzer 1)	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930025	27	030N	240E	Clay Basin Unit 34-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930028	27	030N	240E	Clay Basin Unit 37-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930029	27	030N	240E	Clay Basin Unit 38-S	1025 to 14040		Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930043	27	030N	240E	Clay Basin Unit 47-S	1025 to 14040		Clay Basin Gas Storage